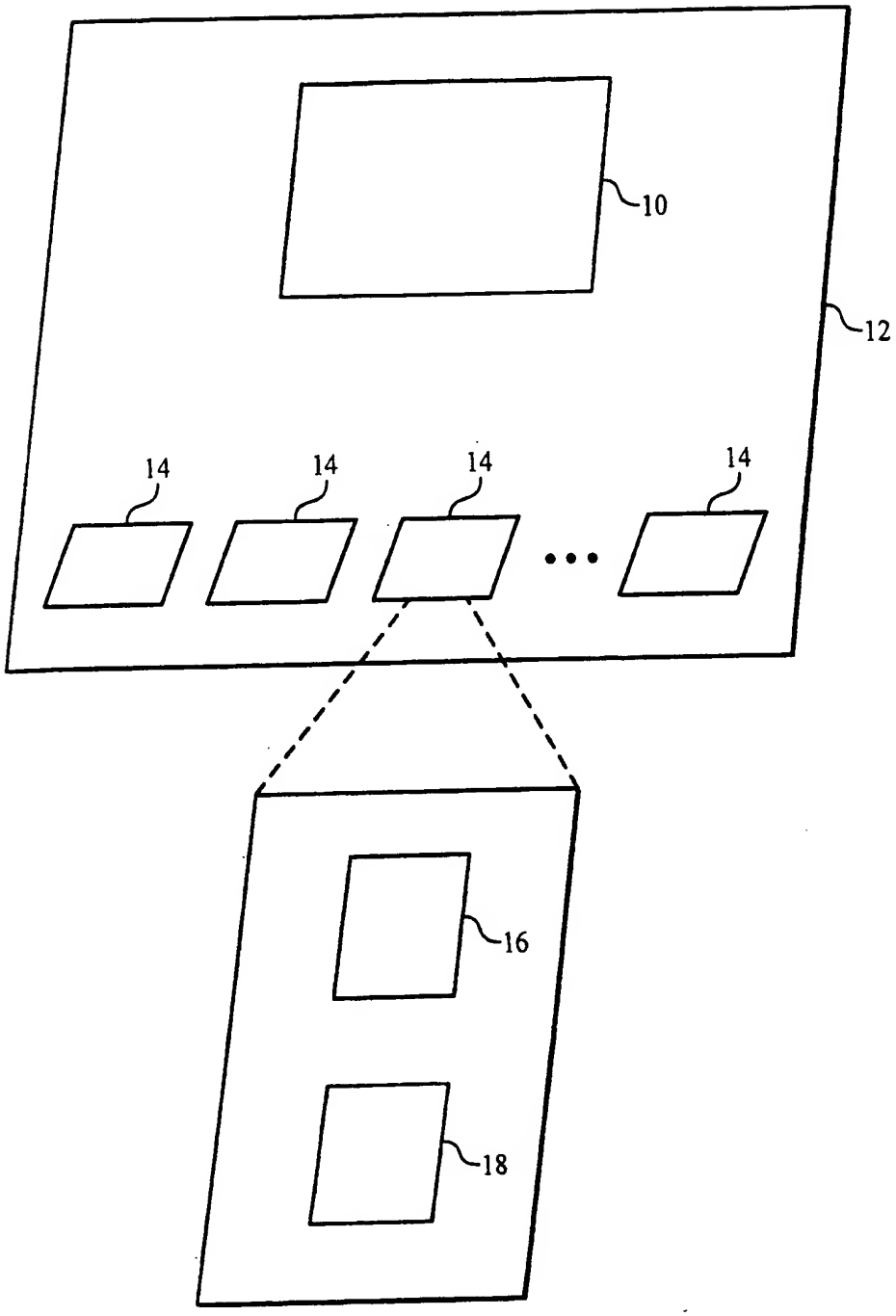

FIG. 1A

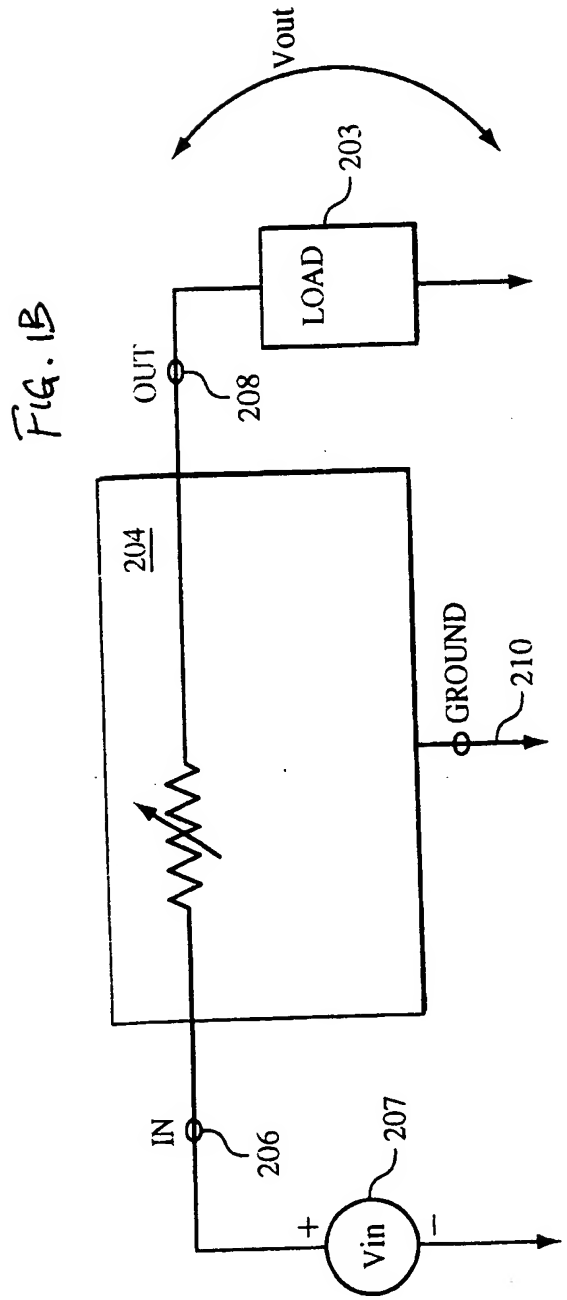

Fig. 1B

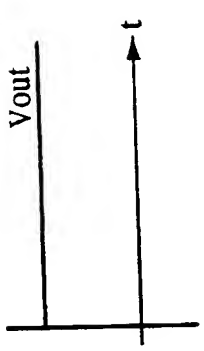

Fig. 1D

202

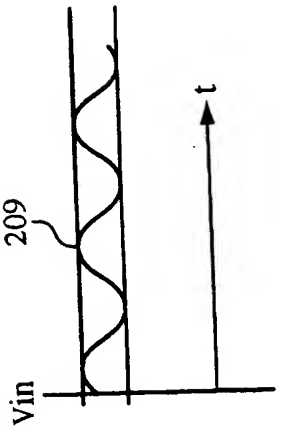

Fig. 1C

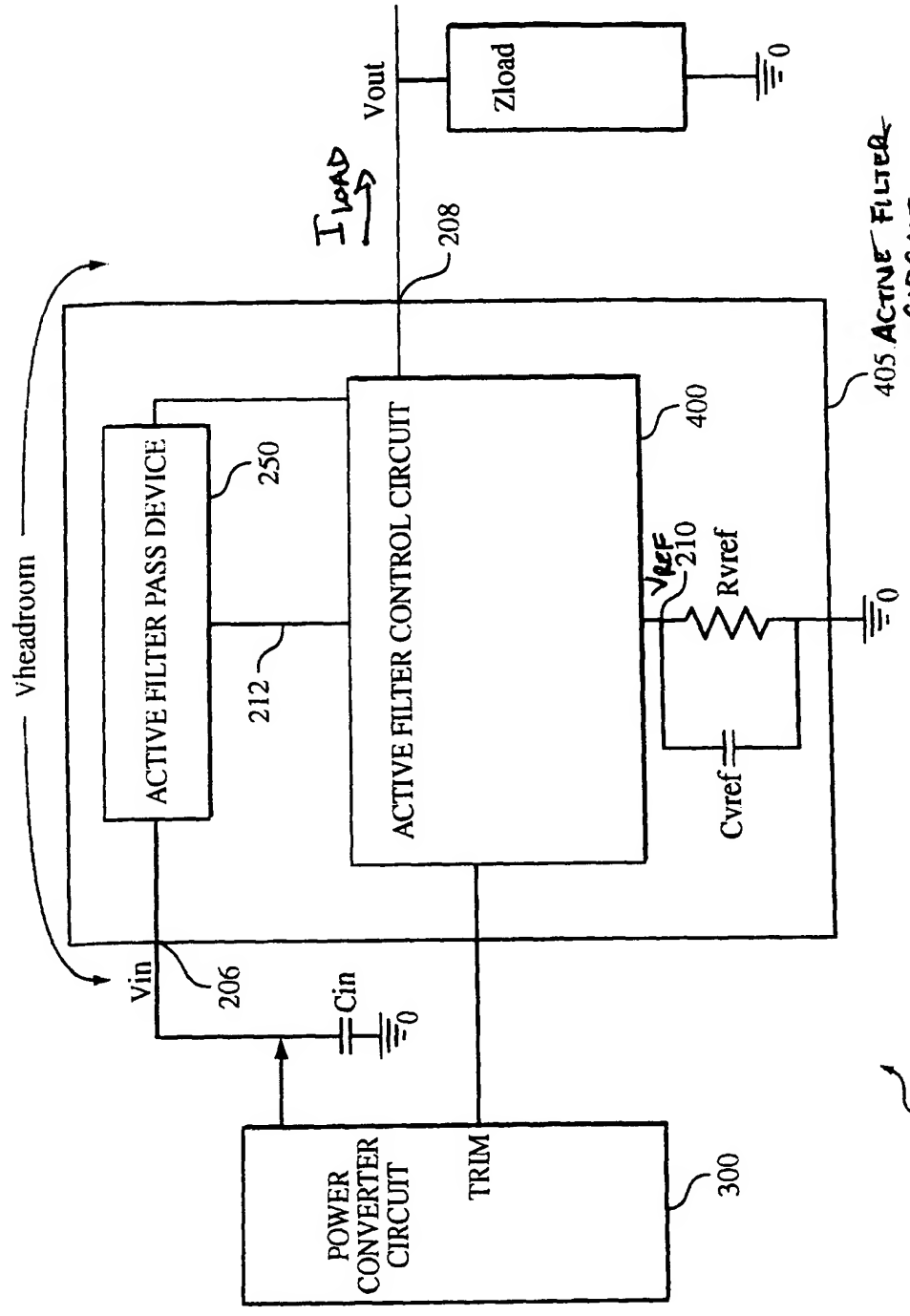
Vheadroom
Vout
Zload
0
Iload
208
405 ACTIVE FILTER CIRCUIT
ACTIVE FILTER PASS DEVICE
250
212
ACTIVE FILTER CONTROL CIRCUIT
400
Vref
210
Rvref
0
Cvref
Vin
206
Cin
0
POWER CONVERTER CIRCUIT
TRIM
300
202
ACTIVE FILTER SYSTEM

FIG. 2

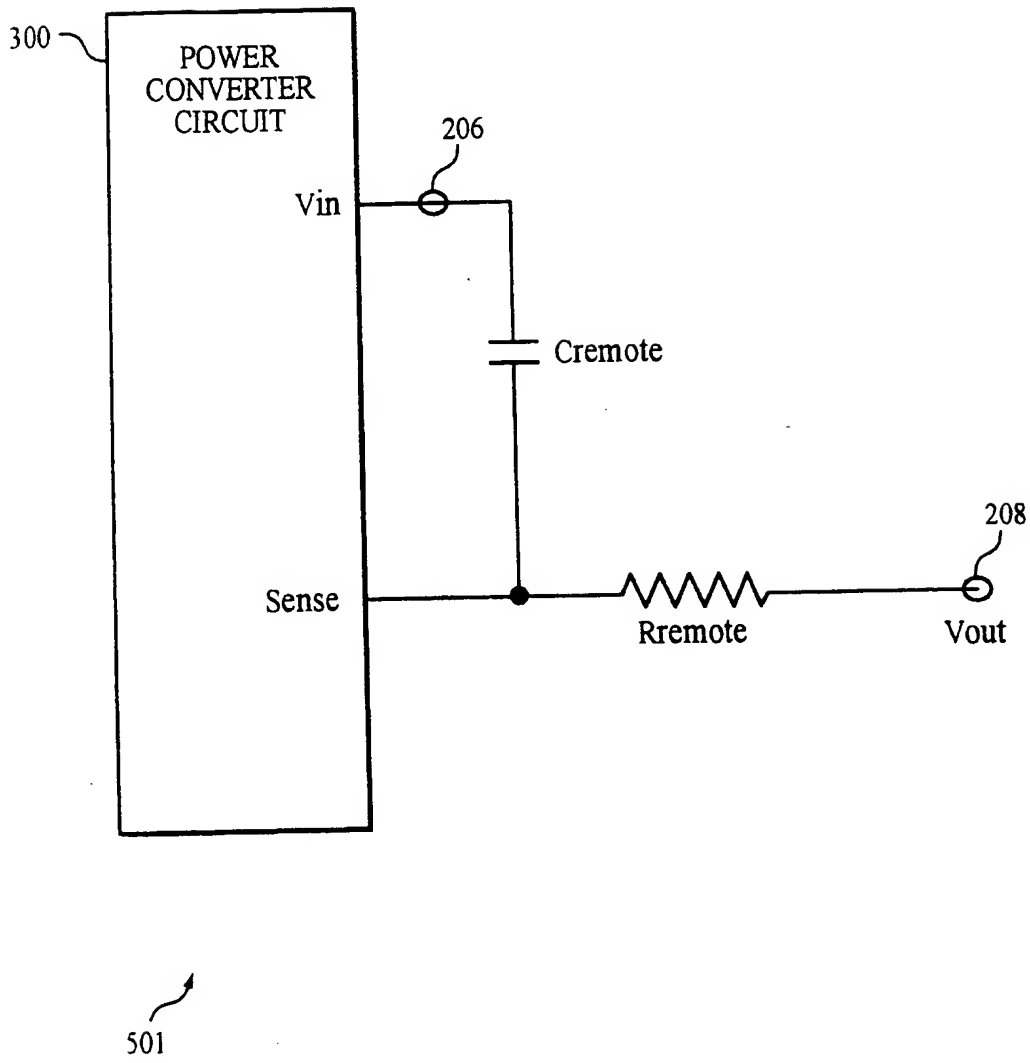
300
POWER
CONVERTER
CIRCUIT
206
Vin
Cremote
208
Sense
Rremote
Vout
501

FIG. 3

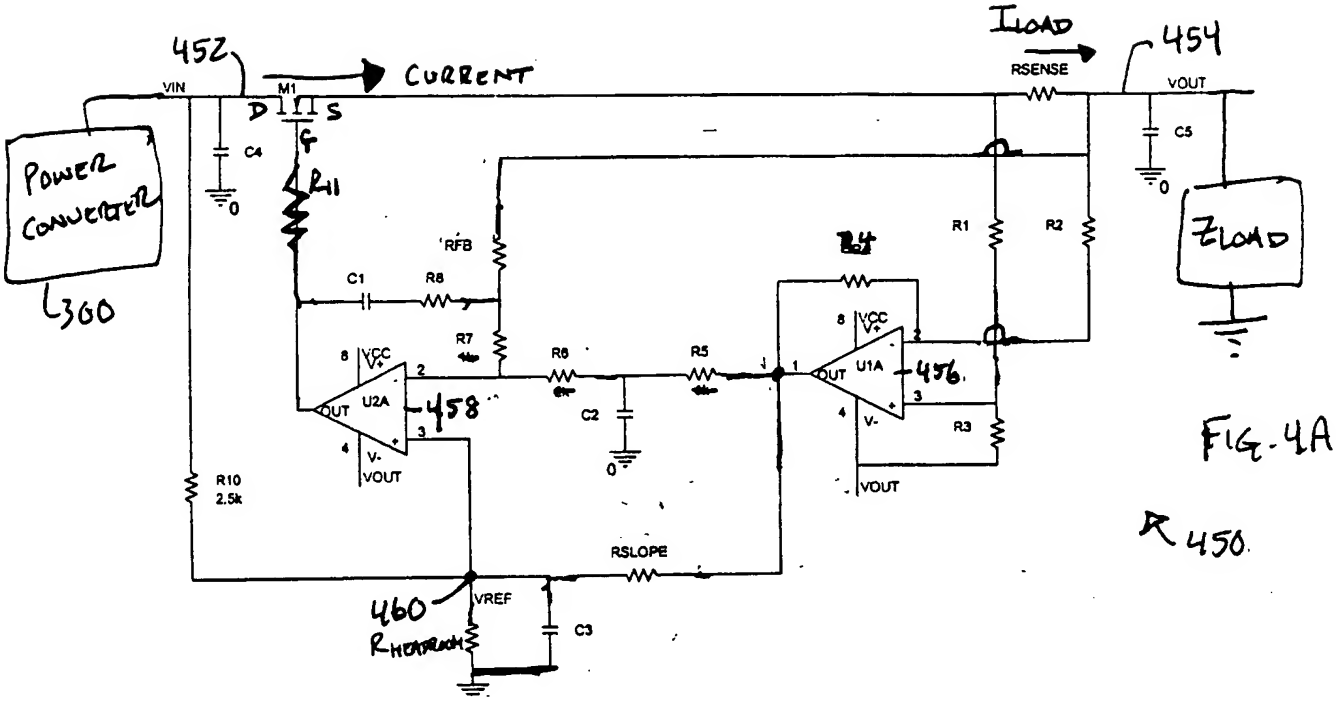
452
CURRENT
ILOAD
454
VIN
M1
RSENSE
VOUT
POWER CONVERTER
300
C4
C5
RFB
R1
R2
ZLOAD
C1
R8
R7
R6
R5
R4
U2A
458
U1A
456
C2
R3
R10
2.5k
RSLOPE
460
VREF
C3
450

FIG. 4A

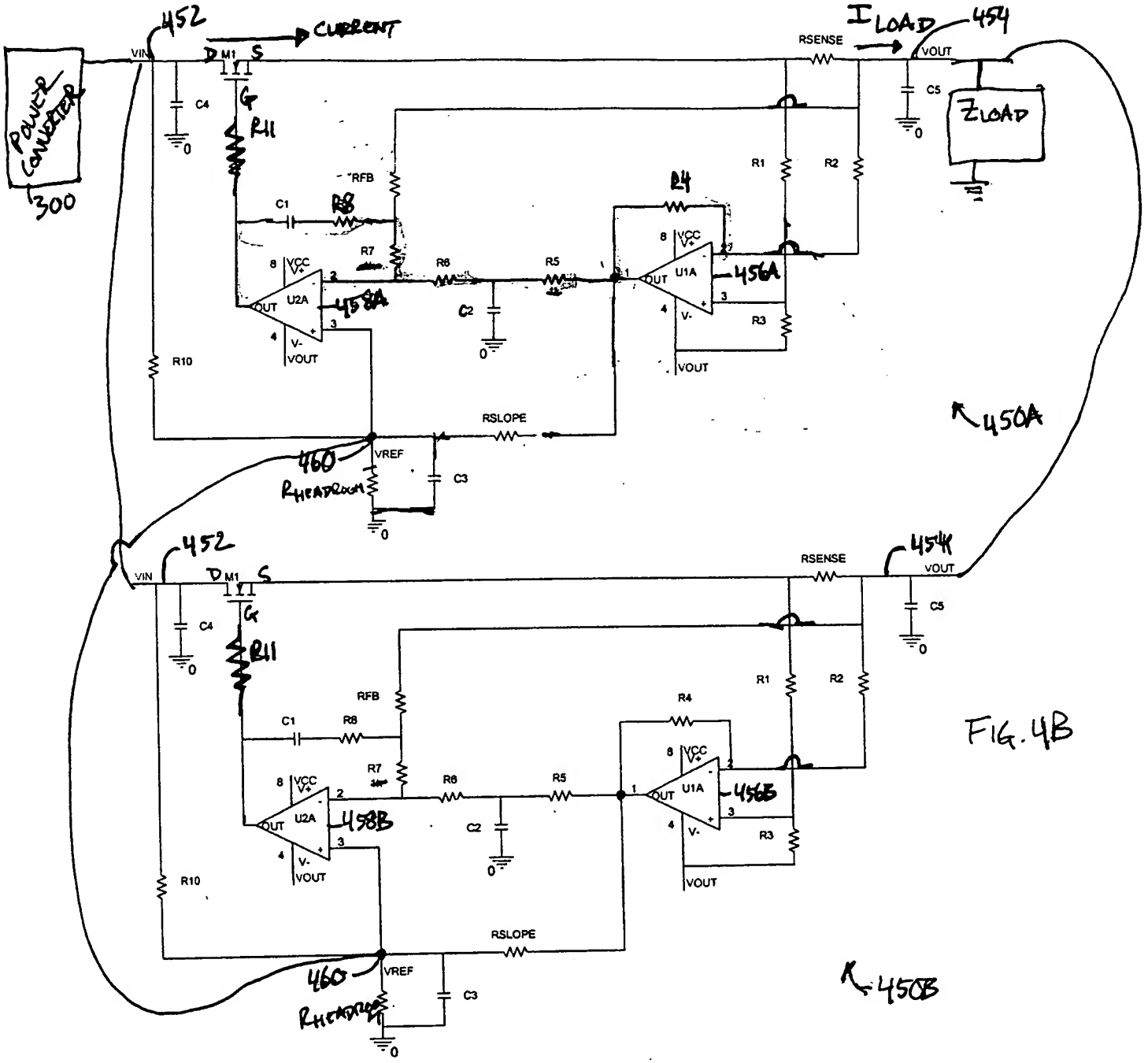
POWER CONVERTER
300
452
CURRENT
VIN
D M1 S
G
C4
R11
RFB
C1
R8
R7
R6
R5
U2A
458A
C2
R10
RSLOPE
460
RHEADROOM
VREF
C3
RSENSE
VOUT
I LOAD
454
C5
ZLOAD
R1
R2
R4
U1A
456A
R3
450A
452
454A
458B
456B
450B

FIG. 4B

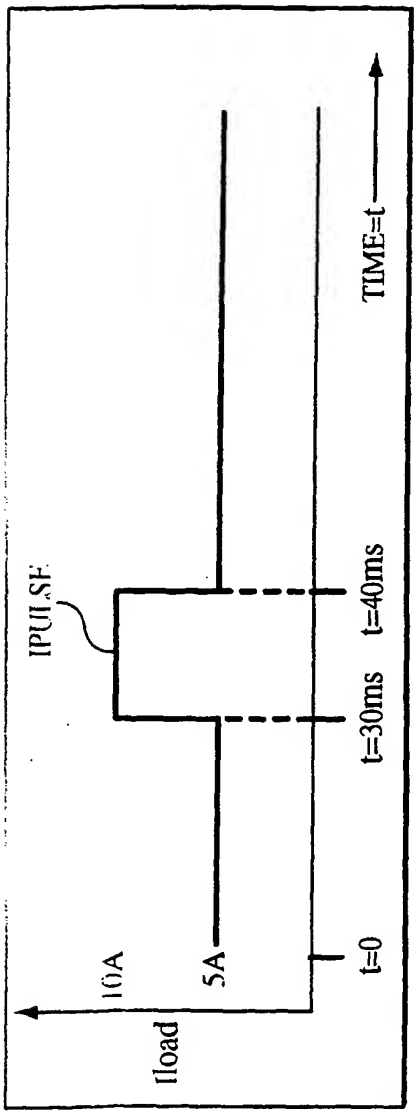
IPULSE
10A
5A
Iload
t=0
t=30ms
t=40ms
TIME=t

FIG. 5A

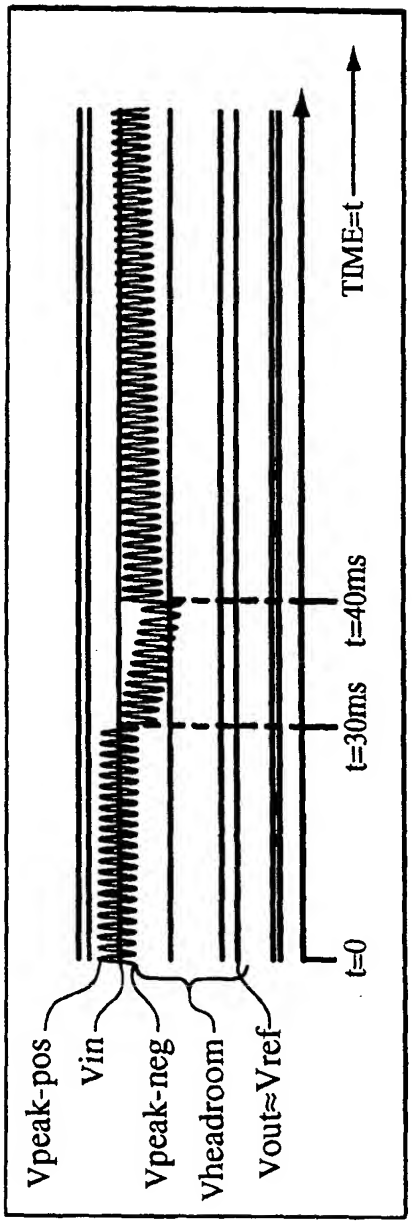
Vpeak-pos
Vin
Vpeak-neg
Vheadroom
Vout≈Vref
t=0
t=30ms
t=40ms
TIME=t

FIG. 5B

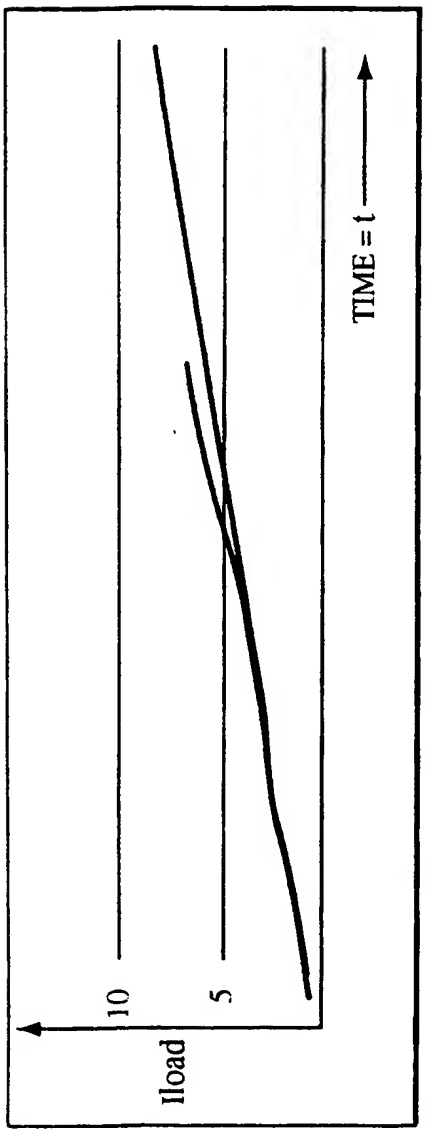

FIG. 5C

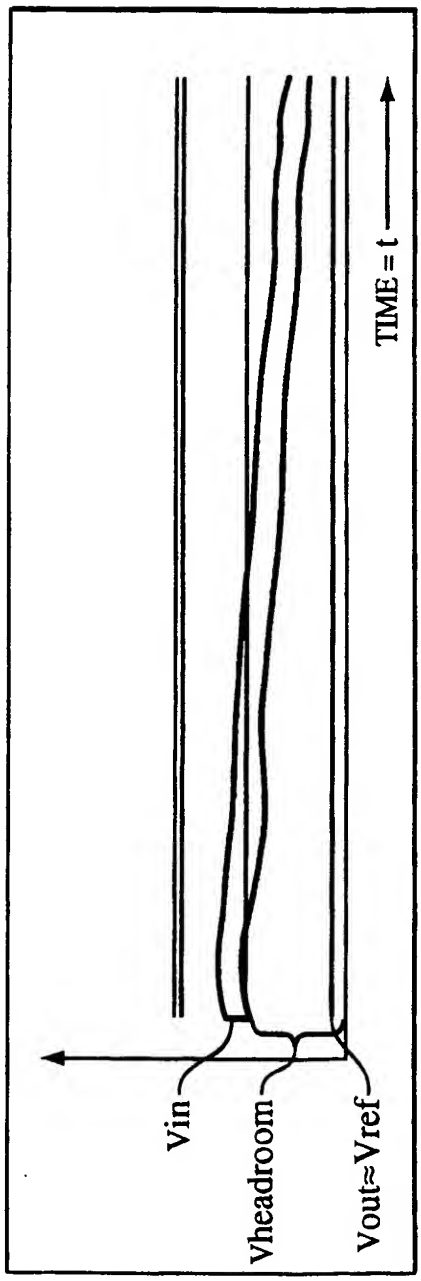

FIG. 5D

$R_{SLOPE} = f(R_{HEADROOM})$

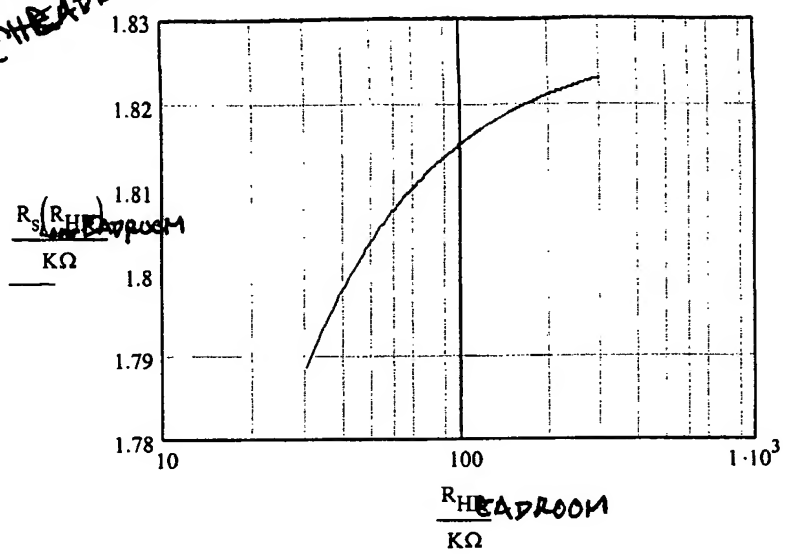

FIG-5E

30k → 300k